CLAIM LISTING

1.   (Canceled).

2.   (Previously presented) The method of claim 15, wherein said ratio D(t)/D(b) is between 0.8 and 0.99.

3.   (Canceled).

4.   (Currently amended) The method of claim [[14]]18, further comprising the step of machining the ~~tubular~~first and second ends to reduce a wall thickness in a welding zone.

5.   (Currently amended) The method of claim [[14]]18, wherein the tubulars comprise a relatively lower grade steel base pipe and a relatively higher grade steel cladding on an inner and/or outer surface of the base pipe and the first and second end faces are shaped such that when the tubular ends are pressed together the end faces of the cladding(s) touch each other before the end faces of the base pipe ends touch.

6.   (Currently amended) The method of claim [[14]]23, wherein the convex shape is wedge shaped.

7.   (Previously presented) The method of claim 5, further comprising machining at least one of the first and second ends having cladding such that the base pipe is not exposed.

8.   (Previously presented) The method of claim 5, further comprising flushing a welding zone with a flushing gas injected into the welding zone from an uncladded side of the tubular, such that the flushing gas continues to reach the ends of the still spaced base pipes after the claddings have touched.

9.   (Original) The method of claim 8, wherein the flushing gas is a reducing flushing gas.

10.   (Previously presented) The method of claim 9, wherein the flushing gas is a non-explosive mixture of an inert gas and a reducing gas.

11.   (Previously presented) The method of claim 10, wherein the inert gas is selected from the group consisting of helium, argon, nitrogen, and carbon dioxide and the reducing gas is selected from the group consisting of hydrogen, carbon monoxide, and mixtures thereof.

12.   (Previously presented) The method of claim 11, wherein the non-explosive flushing gas mixture comprises more than 90% by volume of an inert gas and at least 2% by volume of hydrogen.

13.   (Canceled).

14.   (Canceled).

15.   (Currently Amended) The method of Claim [[14]]18, further comprising the step of

selecting the ~~sloping configuration being selected~~ predetermined inward angle such that the ratio

between an average diameter D(t) ~~of a tip of the convex shape~~ on the end face of the first end and

an average diameter D(b) at the base of the first end ~~of the tubular wall~~ is related to an estimated

temperature difference between the tip and ~~tubular wall~~ and the base of the first end and a

thermal expansion co-efficient of the ~~tubular~~ first end.

16.   (Canceled).

17.   (Canceled).

18.   (New) A method for interconnecting by forge welding a first tubular having a first end

with a second tubular having a second end, the method comprising:

        forming the first end such that, in an unheated condition, at least an outer wall of the first

end extending from a base of the first end to an end face of the first end is disposed at a

predetermined inward angle with respect to a center line of the first tubular, the predetermined

inward angle selected as a function of an estimated temperature difference between the end face

and the base when the first end is heated for forge welding, and a coefficient of thermal

expansion of the first end;

        positioning the first end of the first tubular to be proximate to the second end of the

second tubular such that the center lines of the first and second tubulars are in axial alignment;

        heating the first end of the first tubular and the second end of the second tubular into a

predetermined heated condition, such that there exists a predetermined temperature difference between the end face of the first end and the base of the first end;

responsive to said step of heating, angularly displacing at least the outer wall of the first end by thermal expansion such that the outer wall of the first end is deformed into a substantially longitudinally oriented cylindrical surface; and

while the first and second ends are in the heated condition, pressing the first end of the first tubular into the second end of the second tubular to thereby join the first tubular to the second tubular;

wherein said predetermined inward angle is selected from the range of approximately one degree to approximately five degrees.

19.   (New) The method of Claim 18, and further comprising the steps of

forming the first end such that, in the unheated condition, an inner wall of the first end extending from the base of the first end to the end face of the first end is disposed at said predetermined inward angle with respect to the center line of the first tubular; and

responsive to said step of heating, angularly displacing the inner wall of the first end through thermal expansion such that the inner wall of the first end is deformed into a substantially longitudinally oriented cylindrical surface while the first end is in the heated condition.

20.   (New) The method of Claim 18, and further comprising the steps of

forming the second end to include an annular channel with a radially outward wall, a

radially inward wall, and a channel bottom joining the outward and inward walls of the channel, at least the radially outward wall disposed at said predetermined inward angle with respect to the center line of the second tubular while the second end is in an unheated condition;

responsive to said step of heating, angularly displacing the outward wall of the channel through thermal expansion such that the outward wall of the channel is deformed into a substantially longitudinally oriented cylindrical surface while the second end is in the heated condition;

during said step of pressing the first end of the first tubular into the second end of the second tubular, inserting the end face of the first end into the channel of the second end; and

during said step of pressing the first end of the first tubular into the second end of the second tubular, fitting the outer wall of the first end to the outward wall of the channel of the second end.

21.   (New) The method of Claim 20, and further comprising the steps of

forming the inward wall of the channel in the second end to be disposed at said predetermined inward angle with respect to the center line of the second tubular while the second end is in an unheated condition;

forming the inner wall of the first end of the first tubular to be disposed at the predetermined inward angle with respect to the center line of the first tubular;

responsive to the step of heating, angularly displacing the inward wall of the channel through thermal expansion such that the inward wall of the channel is deformed into a substantially longitudinally oriented cylindrical surface while the second end is in the heated

condition;

responsive to said step of heating, angularly displacing the inner wall of the first end of the first tubular through thermal expansion such that the inner wall of the tubular is deformed into a substantially longitudinally oriented cylindrical surface while the first end is in a heated condition; and

during said step of pressing the first end of the first tubular into the second end of the second tubular, fitting the inner wall of the first end to the inward wall of the channel of the second end.

22.   (New) The method of Claim 18, and further comprising the steps of

forming the second end such that, in an unheated condition, at least an outer wall of the second end extending from a base of the second end to an end face of the second end is at said predetermined inward angle with respect to a center line of the second tubular; and

responsive to said step of heating, angularly displacing the outer wall of the second end through thermal expansion such that the outer wall of the second end is deformed into a substantially longitudinally oriented cylindrical surface while the second end is in the heated condition.

23.   (New) The method of Claim 18, and further comprising the steps of

forming the end face of the first end to have a convex shape, and

forming a face of the second end which mates with the end face of the first end to have a concave shape.

24.   (New) The method of Claim 23, wherein said face of the second end is a bottom of an

annular channel formed in the second end.